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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,063	06/01/2007	Per-Ove Oskarsson	10400-000147/US	6581
36593 7590 07/22/2010 HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 8910 RESTON, VA 20195				
EXAMINER WASAFF, JOHN SAMUEL				
ART UNIT		PAPER NUMBER		
3742				
MAIL DATE		DELIVERY MODE		
07/22/2010		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

## Application No.

10/528,063

## Applicant(s)

OSKARSSON ET AL.

## Examiner

JOHN WASAFF

## Art Unit

3742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 March 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/CD)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_

## **DETAILED ACTION**

### ***Specification***

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

***Drawings***

1. Figures 1a, 1,b, 1c, 2a, 2b, 2c should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Objections***

2. Claims 10, 12-31 are objected to for minor informalities.
3. Claim 10 objected to because of the following informalities: it appears to repeat claim 9 and does not further limit claim 9. Appropriate correction or cancellation of the redundant claim is required.
4. Claim 12 is objected to because of the following informalities: applicant recites "a device in the manufacture" when "a device *for* the manufacture" would be more appropriate.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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6. Claims 1-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
7. Claim 11, lines 4-5 recite "said recess extends 3-9mm in the lengthwise direction," which lacks antecedent basis.
8. Claim 12, lines 3-4 recites "said manufacturing process," which lacks antecedent basis.
9. Claim 18, line 3 recites "the cutting unit," which lacks antecedent basis. This was interpreted to mean "the slitting means."
10. Claim 27, line 3 recites "the cutting part," which lacks antecedent basis. This was interpreted to mean "the slitting means."

***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 12-20, 24-27, 29, 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Holmgren (US Patent No. 4,587,726).

13. In claim 12, Holmgren describes a device in the manufacture of welding electrodes for use in manual metallic arc welding operations (apparatus in Fig. 1 used for manufacture of welding electrodes; see title, Fig. 1), the manufacturing process comprising a unit for the manufacture of core wires (Fig. 1 is schematic representation of unit for manufacture; col. 3, ln. 40-45) and a unit for applying on the core wires a material forming slag and a shielding gas during the welding operation (hopper 13 applies material that forms slag during operation; col. 4, ln. 40-45), wherein the device has at least one shaping unit formed (shaping rolls 4a, 4b; col. 4, ln. 5-15) with at least one slitting means for forming at least one slit in one of the end portions of the core wires (rolls 4c, 4d, 4e form metal strip 1 into tube 1b, which has a visible "slit"; Fig. 4; col. 4, ln. 5-15), and at least one holding means (reel 2; col. 3, ln. 60-65), in which the core wires are arranged to be collected in order to be advanced sequentially past the slitting means (horizontal strip conveyed to and beyond upper bending roll 5; col. 4, ln. 4-5).

14. In claim 13, Holmgren describes a conveyor, arranged to displace the core wires in their longitudinal direction (reel 2 displaces metal strip 1 in longitudinal direction; Fig. 1). .

15. In claim 14, Holmgren describes a conveyor, arranged to displace the core wires in their transverse direction (bending roll 19 displaces metal strip 1 in transverse direction; Fig. 1).

16. In claim 15, Holmgren describes the conveyor is arranged to displace the core wires in their transverse direction in the section of the slitting means (as seen in Fig. 1, bending roll 19 displaces metal strip 1 in transverse direction).

17. In claim 16, Holmgren describes the conveyor is also arranged to displace the core wires in inter-parallel relationship in the section of the slitting means (metal strip 1 parallel in slitting region; Fig. 1).

18. In claim 17, Holmgren describes the conveyor is also a holding device (reel 2).

19. In claim 18, Holmgren describes the shaping unit is placed after the slitting unit and before the application unit, as seen in the order of manufacture (configuration can be seen in Fig. 1).

20. In claim 19, Holmgren describes in the area of the one end portion of the core wires is formed with an opening for access by the slitting means (rolls 4a, 4b produce wire with opening for rollers 4c, 4d, 4e; Fig. 1).

21. In claim 20, Holmgren teaches the device is formed with a guide to guide the core wires towards the slitting means (upper bending roll 5).

22. In claim 24, Holmgren describes a holding device is arranged to displace to core wires in an essentially vertical direction (vertical displacement of metal strip 1 seen in Fig. 1).

23. In claim 25, Holmgren describes a holding device is arranged to displace the core wires in an essentially horizontal direction (horizontal displacement of metal strip 1 seen in Fig. 1).

24. In claim 26, Holmgren describes the holding device is arranged to displace the core wires past said slitting tool by making use of the inherent gravity of the core wires (use of gravity visible in Fig. 1).
25. In claim 27, Holmgren describes the direction of movement of the slitting means form an angle relative to the said one end portion of the core wires (rollers 4c, 4d, 4e at angle to metal strip 1; Fig. 1).
26. In claim 29, Holmgren describes a holding device is arranged to retain the core wires in an essentially horizontal position (configuration can be seen in Fig. 1).
27. In claim 31, Holmgren describes a holding device has a wedge-shaped profile configuration for reception therein of the core wires (configuration can be seen in Fig. 1).

***Claim Rejections - 35 USC § 103***

28. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

29. Claim 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant admitted prior art (AAPA) in view of Edmonds (US Patent No. 4,471,208).
30. In claims 1-11 AAPA teaches a welding electrode for use in manual arc-welding operations ("conventional welding electrode"; p. 13, para. 9; Fig. 1a), the electrode comprising: a core wire having an arc ignition portion (sheath 6) including an arc ignition face (ignition face 4), the cross-sectional area of the arc ignition portion being reduced relative to the main cross



section of the core wire (reduction in size seen in Figs. 2a, 2b, 2c; p. 14, para. 3). AAPA also teaches the welding electrode with core wire coated with a material that forms slag and shielding gas during the welding operation (sheath 6 from sheathing material that transforms during welding operation into slag and shielding gas; p. 13, para. 9).

AAPA does not specifically teach: the arc ignition portion is formed with at least one recess, the mouth of which opens in the longitudinal lateral face of the core wire; the mouth of the recess also has an extension in over the arc ignition face; the recess is a notch; the recess opens in two oppositely positioned lengthwise lateral-face portions of the core wire; the recess forms a slit; the recess is rectilinear; the mouth of the recess has an extension as seen in the longitudinal direction of the welding electrode; the recess extends through the centre of the ignition face; the recess has a filler of the slag and shielding-gas forming material. AAPA also does not teach the recess extends 3-9 mm in the lengthwise direction of the welding electrode and have a width, calculated across the longitudinal direction of the electrode that corresponds to a reduction of the diameter of the core wire by 30-40%

Edmonds teaches electrodes for welding that are formed with a notched, rectilinear recess, the mouth of which opens in the longitudinal lateral face of the core wire and extends through the center of the face (slot 3 formed in electrode 1; Fig. 1). This mouth extends over the entire face, forming two oppositely positioned lengthwise lateral-face portions (Fig. 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the features of Edmonds. The motivation is for a reduction in the number of metal ions that adhere to the surface of the electrode (col. 1, ln. 5-15).

Regarding the recess extending 3-9mm and a reduction of the diameter of the core wire by 30-40%, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the dimensions taught by Edmonds (col. 1, ln. 35-45), to match the dimensions claimed. It has been held that where the general conditions of a claim are disclosed in the prior art (i.e., recess length and diameter reduction), discovering the optimum or working ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

31. Claim 21-23, 28, 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holmgren (US Patent No. 4,587,726) in view of Austin (US Patent No. 1,940,573).

32. Holmgren teaches all the features as set forth above.

Holmgren does not teach: the slitting means is formed with a sawing tool; the slitting means comprises a circular saw band; the saw band is continuous; the saw band is arranged to travel around deflection wheels.

Austin teaches a method of manufacturing welding electrodes that forms indentations with a circular saw with a continuous edge that travels around the rod (Fig. 11 of Austin).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Holmgren with Austin. The motivation is for the formation of recesses that are capable of receiving flux material and the like.

### ***Conclusion***

33. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. (See Notice of References Cited.)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN WASAFF whose telephone number is (571)270-1283. The examiner can normally be reached on Monday through Friday, 7:30am to 5:00pm, alternating Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu Hoang can be reached on (571)272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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